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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

ITOH ET AL.

Atty. Ref.: 1035-646

Serial No. 10/589,003

TC/A.U.: 2812

Filed: August 10, 2006

Examiner: Unknown

For: GROUP I-VII SEMICONDUCTOR SINGLE CRYSTAL THIN FILM AND PROCESS  
FOR PRODUCING SAME

\* \* \* \* \*

January 30, 2007

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT**

As suggested by 37 C.F.R. 1.97, the undersigned attorney brings to the attention of the Patent and Trademark Office the references listed on the attached form PTO-1449. A copy of the International Search Report and cited references are attached.

This is not to be construed as a representation that a search has been made or that no better prior art exists, or that a reference is relevant merely because cited.

The Examiner is requested to initial the attached form PTO-1449 and to return a copy of the initialed document to the undersigned as an indication that the attached references have been considered and made of record.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

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## INFORMATION DISCLOSURE CITATION

ATTY. DOCKET NO.

1035-646

SERIAL NO.

10/589,003

APPLICANT

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(Use several sheets if necessary)

## DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

1.	M.Takata et al. "MBE growth condition of CuCl thin films and their optical properties" Proceedings of 14th conference of association for condensed matter photophysics, p.27-30.
2.	M.Takata et al. "Growth of CuCl thin films by electron-beam assisted MBE and their optical properties" International Symposium on the Creation of Novel Nanomaterials Program and Abstracts, p.117.
3.	S.Yano et al. "Excitonic optical nonlinearity of CuCl microcrystals in a NaCl matrix" J. Appl. Phys. 79 (ii), 1 June 1996, p.8216-8222
4.	A.I.Ekimov et al. "QUANTUM SIZE EFFECT IN SEMICONDUCTOR MICROCRYSTALS" Solid State Communications, Vol.56, No.11, 1985, p.921-924.
5.	T.Itoh et al. "Study on the Size and Shape of CuCl Microcrystals Embedded in Alkali-Chloride Matrices and Their Correlation with Exciton Confinement" Phys. Stat. Sol.(b) 145, 1988, p.567-577.
6.	G.R.Olbright et al. "EPITAXIAL GROWTH AND X-RAY DIFFRACTION ANALYSIS OF SINGLE-CRYSTAL THIN FILMS OF CuCl" Solid State Communications, Vol.58, No.6, 1986, p.337-341
7.	R.S.Williams et al. "Growth and luminescence spectroscopy of a CuCl quantum well structure" J. Vac. Sci. Technol. A6 (3), May/June 1988, p.1950-1952.
8.	A.Kahn et al. "Determinants of Surface Atomic Geometry: The CuCl(110) Test Case" PHYSICAL REVIEW LETTERS, Vol.68, No.21, 25 May 1992, p.3200-3203.
9.	A.Yanase et al. "Heteroepitaxial growth of CuCl on MgO(00 1) substrates" Surface Science Letters 278, 1992, L105L109
10.	H.Ishihara et al. "Anomalous size dependence of degenerate four-wave mixing due to double resonance of internal field and third-order susceptibility" PHYSICAL REVIEW B, Vol.65, 035305, p.1-9.
11.	K.Cho " "ABC" -Free Theory of Polariton From Semi-Infinite Medium to Quantum Well" Journal of the Physical Society of Japan, Vol.55, No.11, November, 1986, p.4113-4121.
12.	K.Cho et al. "Theoretical Analysis of Polariton Interference in a Thin Platelet of CuCl. I. Additional Boundary Condition" Journal of the Physical Society of Japan, Vol.54, No.11, November, 1985, p.4431-4443.
13.	M.Ichimiya et al. "Enhancement of Degenerate Four-Wave Mixing Signal in CuCl Nanostructures with High Crystalline Quality" IQEC/CLEOPR, Technical Digest, JWAB3-PI, 13 July 2005.
14.	M.Ichimiya et al. "Ultrafast degenerate four-wave mixing at confined exciton resonance in CuCl ultrathin films with high crystalline quality" Proceeding of Joint Conference on Ultrafast Optics V and Applications of High Field and Short Wavelength Sources XI, W2-7, 28 September 2005.
15.	M.Ichimiya et al. "Ultrafast degenerate four-wave mixing in CuCl ultrathin films" Proceedings of The 7th International Conference on Excitonic Processes in Condensed Matter (EXCON 2006), to be published in Physica Status Solidi (C), OPB11, 29 June 2006.
16.	M.Ichimiya et al. "Enhancement of Nonlinear Optical Response in CuCl Nanostructures" 3rd Annual Meeting of Society of Nanao Science and Technology.
17.	M.Hasegawa et al. "Enhancement effect of four-wave mixing signal due to weakly confined excitons in CuCl nanostructures" 15th Annual Meeting of Association for Condensed Matter Photophysics.
18.	M.Ichimiya et al. "Size-resonant enhancement of four-wave mixing signal in CuCl nanostructures" 60th Annual Meeting of The Physical Society of Japan.
19.	M.Hasegawa et al. "CuCl nanostructures on CaF2(111) substrate grown by MBE and their optical properties II" 59th Annual Meeting of The Physical Society of Japan.

\*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.